

All Things Digital



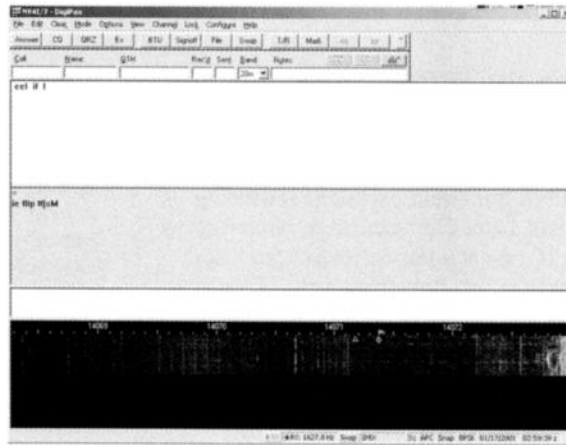
Photoby Ron Speirs. KC7MYS

Clint, KA7OEI shows his PSK31 PIC Transmitter at the January Meeting



Photoby Ron Speirs. KC7MYS

Tom (NY4I) demonstrates Digipan PSK31 Software at the January Meeting



Volume XLV Issue 2, February 2001

The MICROVOLT

Periodicals Postage Paid

PLEASE SEND DUES TO:
U.A.R.C.
c/o Gregg Smith
7546 S. Uranium Dr.
West Jordan, UT 84084

SEND TO:

THE MICROVOLT (USPS 075-430) is published monthly except August for \$15.00 per year or \$1.50 per issue by the Utah Amateur Radio Club, 3666 South State St. Salt Lake City, UT 84115. Periodicals Postage Paid at Salt Lake City UT. POSTMASTER: Send address change to "The Microvolt" 7546 S. Uranium Dr., West Jordan, UT 84084

Prologue

The Utah Amateur Radio Club was organized under its present name in 1927, although its beginnings may date back as early as 1909. In 1928, it became affiliated with the American Radio Relay League (club #1602) and is a non-profit organization under the laws of Utah. It holds a club station license with the call W7SP, a memorial call for Leonard (Zim) Zimmerman, an amateur radio pioneer in the Salt Lake City Area.

Meetings: The club meets each month except July and August. The meetings are held on the first Thursday of the month at 7:30 PM in the Infinia Medical Building located at 1255 East 3900 South in Holladay, across the street from St. Marks Hospital.

Membership: Club membership is open to anyone interested in amateur radio; a current license is not required. Dues are \$15 per year, including a *Microvolt* subscription. The *Microvolt* and membership cannot be separated. Those living at the same address as a member who has paid \$15 may obtain a membership without a *Microvolt* subscription for \$9. Send dues to the Club Secretary: Gregg Smith, K7APW, 7546 S. Uranium Dr., West Jordan, UT 84084. ARRL membership renewals should specify ARRL Club #1602.

Contributions: Monetary contributions are gladly accepted. Send directly to the Club Treasurer: Chuck Johnson, 1612 W. 4915 S., Taylorsville, UT 84123-4244. For in-kind contributions, please contact any board member to make appropriate arrangements.

Repeaters: UARC maintains the 146.62- and the 146.76-repeaters. The repeaters are administered by the UARC Repeater Committee. Comments and questions may be directed to any Committee member. The Lake Mountain repeater (146.76-) has Autopatch facilities on both the Orem exchange (covering Santaquin to Lehi) and the Salt Lake City exchange (covering Draper to Layton). The 449.10 repeater has autopatch facilities available to UARC members into Salt Lake City only. Due to the volume of traffic, only mobiles should use this autopatch. Autopatch use is open to all visitors to our area and to all club members. Non-members who wish to use the autopatch are encouraged to help with the cost of maintaining the equipment by joining the club.

Ham Hot-Line: The Utah Amateur Radio Club (UARC) has a Ham Hotline, 583-3002. Information regarding Amateur Radio can be obtained, including club information, testing, meeting information, and membership information. If no one answers, leave your name, telephone number and a short message.

Publication: *The Microvolt* is the official publication of the club. Deadline for submissions to the *Microvolt* is the 10th of each month prior to publication. Submissions by email are preferred (uarc@xmission.com), but other means including diskettes and typewritten submissions can be mailed directly to: Tom Schaefer, NY4I, 11678 Littler Rd. Sandy, UT 84092. All submissions are welcome but what is printed and how it is edited are the responsibility of the Editor and the UARC board. Reprints are allowed with proper credits to *The Microvolt*, UARC, and authors. Changes in mailing address should be communicated to the Club Secretary: Gregg Smith, 7546 S. Uranium Dr., West Jordan, UT 84084. □

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Program Chair: Ron Speirs, KC7MYS	968-4614
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ATV Engineer: Clint Turner, KA7OEI	566-4497
Board Liaison & Autopatch Engineer: Gordon Smith, K7HFV	582-2438
Provo Autopatch Host & ATV Engineer: Dale Jarvis, WB7FID	224-3405
Repeater Monitor: Allen Wright, N7QFI	268-8482

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For net times and frequencies, testing details and late breaking news listen to the UARC Information Net Sundays at 21:00 on 146.62 or set your browser to: www.xmission.com/~uarc/announce.html □

We are grateful to the management of XMission, our Internet Service Provider (ISP), for the donation of this Web-Page service. □



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The Microvolt

The Official Publication of the Utah Amateur Radio Club, Salt Lake City, Utah

Volume XLV, Issue 2 February 2001



QST From the Prez

Many thanks to Tom Schaefer for a great program in January. It is really great to see this new PSK31 technology in action. PSK31 has seemed to be the topic of conversation on the repeater, and it is great to see that the programs presented at the meetings stimulate us to expand and stretch in our hobby. It is also a great way to meet new hams who are trying out the technology. It seems the setup of the station for the new modes and learning to operate provides a common ground for building friendships.

I have been asked by those who are not in the hobby, why ham radio is so interesting when we can get on the internet and chat with people all over the world. My answer to that question at first was a little difficult to define. Over time I have found it easy to say that when you make a contact on ham radio you know the person on the other end has a common interest in radio. You have both studied to earn your privileges and have both struggled with some of the common problems in the hobby. You have common experiences you have shared such as field day even when you are in Utah and the person you are talking with is in Vermont. You can share your excitement with your first DX contact or your best DX contact.

To your ham friends you can tell stories about opening your neighbor's garage door with your special remote transmitter from your house or turning on their porch lights. You can share the dread when you hear the knock on the door when you have just had a long QSO at 1500 watts with someone in Australia. All these experiences generate a common bond with other hams.

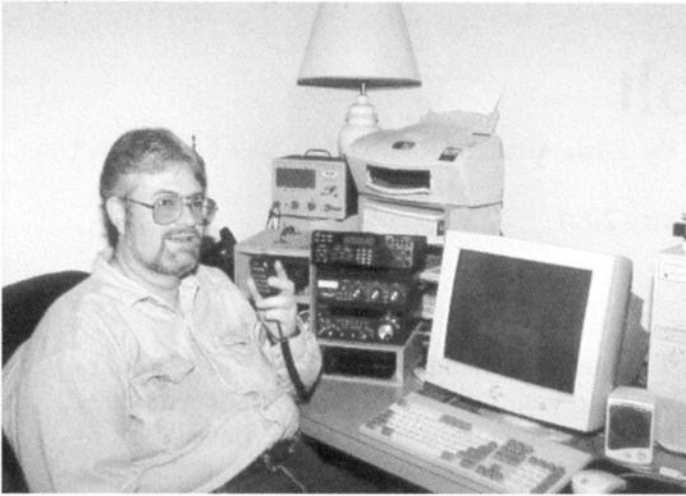
In many of life's experiences it is the things we experience together which brings us together. It is equally true in the Utah Amateur Radio Club. Those members who have experienced a field day will always remember some aspects of the events, whether it is the friendships, the operating excitement, the campfires, John's light show which could probably be seen from the Space Shuttle, or the eerie sounds of CW drifting through the early morning darkness.

We as members who have experienced these things should pass this legacy on to those who are joining us in the hobby for the first time. Many new members may be shy about volunteering to participate. We should reach out to them and show them how to get involved to experience this great camaraderie. Invite them personally to the meeting after the meeting, or ask them if they have any questions about the meeting presentation. It can be very daunting for someone new to ham radio when so many acronyms are used in presentations. Learning in this hobby can be a life-long adventure, so ease them into the journey.

In case you don't want to open your neighbor's garage door or turn on his porch lights, come to the February meeting and learn how.

73
Dick, K7MZ

Featured Member of the Month



Photoby Ron Speirs. KC7MYS

Gregg, K7APW, in his Shack

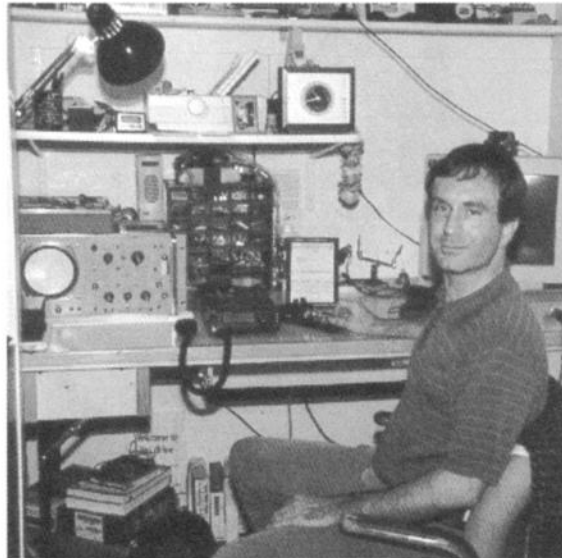
This month we are featuring Gregg Smith K7APW. Yes that's right he has a new call sign. Gregg grew up with amateur radio: his dad, Roy Smith K7YPG, is an amateur radio operator. Gregg used to go down to his father's shack and listen to him talk to people from all over the world. Roy worked real hard to get Gregg in to the hobby, but he just wasn't interested. Gregg thought it was weird to pick up a mike and talk to perfect strangers. One of the myths about amateur radio that concerned Gregg was that you had to be smart enough to build your own radio. Even though he was good in electronics and liked building things this thought intimidated him. When Gregg spent some time in Italy, he met a monk who was an amateur radio operator. This man lived in Genoa, Italy where Christopher Columbus was born. His ham shack was in this huge castle in the top of one of the turrets. Gregg remembers climbing this spiral stair case to get to the shack. Gregg was really impressed with the ham shack and being able to talk all over the world. Another thing that really impressed Gregg about amateur radio was when traveling by car with his father there was always a ham listening and willing to show them around the town. Many years later Gregg heard about a class and decided to go for it. He kept it a secret and studied real hard. When he finally received his license he faxed a copy of it to his dad. Boy - was he surprised! Gregg and his wife, Julie, have three children. His youngest son, Jordan KD7COO, has his technician license and is working hard on getting his general. Gregg is self-employed as a General Contractor in remodeling residential and commercial buildings. Gregg is the secretary of UARC and is also in charge of renewing ARRL memberships. Gregg is a member of ARES. What does Gregg like best about amateur radio -- the

people. This has given him a great opportunity to meet all kinds of people. He has found many new "Perfect strangers" he now calls friends. He also likes all of the activities such as field day and the steak fry. Gregg, we really appreciate all you do for UARC.

73 N7HVF Linda Reeder

Member of the Month for January

Due to a technical error, last month's member of the month, Charles Kimball's picture was left out of the Microvolt. We post it here with our apologies:



Photoby Ron Speirs. KC7MYS

Charlie (KC7QQD) in his Shack



Photoby Ron Speirs. KC7MYS

Charlie's daughter, Alicia (KD7HEC)

PSK 31 January Meeting

The January UARC meeting was a discussion about one of the fastest growing modes in amateur radio: PSK31. Tom Schaefer, NY4I [Ed. That would be me!] presented the digital mode complete with several HF radios ranging from a PSK-20 1 watt QRP PSK radio (built by Ron Jones, K7RJ) to an Elecraft K2 SSB/CW Transceiver Kit (built by Andrew Madsen, AC7CF) to a Yaesu FT-100. PSK31 for those that may not know about it is a mode that allows data transmission at around 31.5 baud, which translates to 50 wpm in English. PSK31 takes up only a small amount of bandwidth to transmit its information. For example, last weekend, the author observed about 25 separate QSOs in a space of only 3 kHz on 20m. Try that with SSB (or even CW for that matter)! PSK31 requires limited equipment such as a computer (you do have a computer in the shack, right?) with a soundcard, and an HF transceiver. Add a few cables and you are on the air. One of the most fun things about PSK31 is that is a purely conversational mode. While other digital modes can be used for "keyboard-to-keyboard" communications, PSK31 seems to excel in that mode. This makes it a digital mode truly made for the radio amateur. Allow me to explain: PSK31 is used with a program to tune on different stations. To start a conversation with a station, you simply click on a station calling CQ and your frequency is all tuned. You do not actually adjust the transmitter of the radio. The soundcard in the PC alters the frequency to the proper frequency to transmit in the desired space (31.5 Hz). Granted, this is quite hard to imagine, but once the program is running, it is quite easy to get the hang of it. While there are many programs available to run PSK31, a program called Digipan seems to be the easiest. To find a copy of Digipan, check out the UARC website, in the software section.

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Bob Wood W7OAD, UARC Member

February 2001 Meeting

Our speaker at the UARC meeting on February 1 has some interesting tales to tell. There are tales of interference, jamming, and RF oddities.

Gary Lysiak, K8XM, has many years of experience in radio. He has worked with amateur radio, public safety radio, and broadcast radio, and has seen the workings of the FCC from the inside and outside. He is currently the President and founder of Owl Engineering, a firm specializing in engineering consulting for broadcast stations (and prospective broadcast stations). Gary's career has included work as a design engineer, an FCC Engineer-in-Charge, and an instructor.

Gary will be coming from his home in Minnesota. We hear excellent reports about his presentation.

That will be Thursday, February 1, at 7:30 P.M. Of course there will be the "standard" features of monthly meetings as well:

- Availability of ARRL books from Fred, the "book lady";
- A chance to sign up for badges, hats, and jackets;
- Just before the meeting -- "Show and Tell Time" to show off your newest homebrew project;
- The "Elmer Hour," a chance, after the meeting, to get your questions answered by those who have been in the hobby a while; and
- The "Meeting(s) after the meeting": A chance to enjoy pizza or other gastronomic delights with other hams.

Gordon, K7HFV □



Saving 10 Bucks versus “Kicking” the Tires.

As many UARC members undoubtedly know, Bob Wood, W7OAD, runs the local ham store in Salt Lake City. Having been a ham in other parts of the country, I can confidently say that Bob's store is certainly on par with any of the big stores and in most cases, exceeds them. Bob offers good selection, helpful service, and offers service on all makes and models of radios. Interestingly enough, even though Bob's main competition seems to be the big mail order places like AES, and HRO, Bob still maintains a competitive price with other outlets and in many cases, Bob offers lower prices than AES or HRO. However, while this happens, this is not the point of this article. Bob offers a great service at the “candy” store as it has come to be known. You can go to Bob's store and turn the dials and use the radios from basic HF gear to the most sophisticated radios currently on the market. You also get the good fortune to be able to share more of the camaraderie with fellow hams that many of us enjoy from radio. So, while it may be possible to save a few bucks on a radio [or the sales tax which you are supposed to pay anyway Ed.], you lose much more by not supporting the local store. Another point that all UARC members should know is that Bob is a regular advertiser in the *Microvolt* and frequently donates prizes for UARC meetings. UARC and all its members enjoy the benefits of Bob's support of UARC and it would seem right for the club officers and members to reciprocate. For many years, Salt Lake City lacked a real ham store with good service. Bob offers all of us the chance to experience a real store. As UARC members, I encourage each and every person reading this to make it a point to buy from the local store and forget about the mail order houses. The buying opportunity you save may be your own.

UARC Exam Team

The first Saturday of every other month continues a long-standing UARC tradition: Exams. For the past 16 years, Gordon Smith, K7HFV has been giving amateur radio exams under the ARRL Volunteer Examination Coordinator (VEC). Without fail, exams are given on the even-numbered months [Feb 3 is the next exam] for all classes of license. Besides needing people to take the tests, Gordon can always use amateurs to help out and administer the exams. If you are already an examiner, please contact Gordon to

express your willingness to participate. If you are interested in becoming an ARRL accredited examiner, please send an email to vec@arrl.org or write to the ARRL VEC c/o the ARRL, 225 Main Street, Newington, CT 06111. Becoming an examiner is a great way to give back some of the fun and excitement that amateur radio has given you.

APRS Net Needs Help

The weekly APRS net needs help! This net has run for over a year with a small number of net control operators. As some of you may have noticed, sometimes the net control station [That would be me - Ed] forgets about the net and it does not start. If you are interested in helping out with net control duties, please contact Tom Schaefer, NY4I. If there is enough interest, this net may transform itself into a digital net to include topics such as APRS, packet, PSK31, MFSK16 to name a few. If you would be interested in such a net, please volunteer to take a net control shift. The net occurs every Sunday evening at 8:00 PM on the 146.62 repeater.

New Advertiser - SolAir Technology

UARC welcomes its newest advertiser in the *Microvolt*. SolAir specializes in alternative energy sources. Dave has wind and solar powered systems to help supply as little as 400 watts of power for emergency communications to whole house systems. UARC thanks all its advertisers and remember - tell them you saw it in the *Microvolt*.

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David Whiting, KD7APK
UARC member

If your business is interested in placing an amateur radio related advertisement in the *Microvolt*, please contact the editor (uarc@xmission.com).

UARC INCOME & EXPENSES 2000**INCOME**

Advertising	300.00
ARRL Dues Collected	1,499.00
Book income	5,778.49
Donations received	15.00
UARC Dues collected	7,432.00
Steak fry income	557.00
Merchandise sales	145.00
Interest earned	350.92

TOTAL INCOME 16,077.41

EXPENSES

Administration & postage	281.18
ARRL Dues Paid	1,381.00
Merchandise for resale	90.00
Books purchased	5,053.34
Capital expenses	169.60
Club Meetings	995.24
Field Day	712.15
Grants	50.00
Ham Hot Line	325.21
Insurance	325.00
Microvolt printing & postage	5,697.11
Repeater phone	595.59
Repeater repairs & improvements	580.50
Steak fry	1,293.07
Sales Tax	320.79

TOTAL EXPENSES 17,869.78

TOTAL INCOME - EXPENSES (1,792.37)

Estate Sale of Jack, KC7KEL

The following items remaining for sale from the estate of Jack Warren, KC7KEL (SK).

Radio Shack vox Headset	\$20
Univox Dynamic Mic	\$40
Larsen Mag Mount (BNC)	\$20
Radio Shack Highball Dynamic Mic	\$10
Radio Shack HTX404 440 handheld	\$75
Radio Shack HTA20 amplifier	\$30
Radio Shack 12v power supply	\$10
Radio Shack 5/8 wave 2m mag mount	\$20
Arrow Walking Stick 2m antenna	\$40
70cm beam antenna (handheld)	\$40
BALUN	\$10

Contact: Dave Player 561-2585 (kc7ngh@arrl.net)
□

Examination Schedule for February

2/03/2001 (Sat.) Salt Lake City
Contact: Gordon Smith, K7HFV
Phone: 582-2438

02/14/2001 (Wed.) Mantua
Contact: Jim Jones, KJ7VO
Phone (435) 723-1947

02/21/2001 (Wed.) Provo
Contact: Steve Whitehead, NV7V
Phone: H 465-3983 B 225-5200

02/27/2001 * (Tues.) Salt Lake City
Contact: Eugene McWherter, N7OVT
Phone: 484-6355

*Only Technician elements (1 and 2) given at this session.

For more detail either call the contact or checkout the information on our webpage
<http://www.xmission.com/~uarc> □

**Looking for a UARC Member**

Looking for a UARC member? Have you checked the website? The UARC website (www.xmission.com/~uarc) offers a searchable membership database. Simply click on the membership link from the homepage and you can search the database by name, address, or any other piece of information. The system returns any and all address entries that match. Additionally, if you click on the address, you get a map of their mailing address. Click on the callsign, and you get the callsign record straight from QRZ. Please remember this database is for the non-commercial use of the public. So, no sales calls from a number you got from our list, please. If you would prefer to not have some or all of your information listed, please let the club secretary know

2001 UARC Steak Fry

The date for the 2001 UARC Steak Fry has been set for July 21st, 2001. The location is back at the Spruces, Area 7 (Yes, the bigger one). Certainly more plans will be made public in the future, but this way you can plan your calendars.

VHF Society Swapmeet 2001

The 2001 VHF Society Swapmeet will be on Saturday, February 24th, 2001. The location is the Utah State Fair park along the north side of North Temple at about 10th West. *This is **NOT** the same location as previous swap meets, so **do not** go to the same place as last year!* The swapmeet starts at 8:00 AM. Admission is Free to VHF Society members and \$2.00 for non-members. If you would like to display your wares for sale, there will be a limited number of 8 foot long tables available. For a "swap space" with a table, the charge will be an additional \$5.00. If you plan to bring your own table (that is, you just want an 8 foot long floor space) the charge will be \$3.00. This is in addition to the admission fee (if any.) More information can be obtained at their website: <http://www.ussc.com/~uvhfs>.

Contesting Calendar for February 2001

Vermont QSO Party 0000Z, Feb 3
 New Hampshire QSO Party 0000Z, Feb 3
 10-10 Inter. Winter Contest, SSB 0001Z, Feb 3
 Minnesota QSO Party 1400Z - 2400Z, Feb 3
 Delaware QSO Party 1700Z, Feb 3
 North American Sprint, Phone 0000Z, Feb 4
 CQ/RJ WW RTTY WPX Contest 0000Z, Feb 10
 ARRL Inter. DX Contest, CW 0000Z, Feb 17
 CQ 160-Meter Contest, SSB 2200Z, Feb 23
 North Carolina QSO Party 1200Z, Feb 24
 See www.contesting.com for complete calendar □

New ARRL Exam Fee

Effective January 1st, 2001, the test fee for ARRL-coordinated exams is now \$10. The exam fee now applies to everyone including technicians. Additionally, each retest an examinee takes is subject to an additional \$10 test fee. As always, one can take as many exams (in order) without an additional fee as long as they pass. In other words, someone that goes from Technician to Extra would only pay one fee, but someone that takes a General exam, but fails and wants to take it again, will pay an additional \$10 fee. So, study up!

The Utah Amateur Radio Club (UARC) has a Ham Hotline, 583-3002. Information regarding Amateur Radio can be obtained, including club information, testing, meeting information, and membership information. Leave your name, telephone number and a short message on the answering machine if no one answers and your call will be returned.

Linda, N7HVF □

Begging for Articles

OK - I'm begging. Right now, I am on my knees begging you for an article. Anything amateur radio related will do - tell us how you installed your mobile rig. Tell us about that rare one you worked last month without a DX List. Tell us about how you studied for your code test. Did you try PSK31 or another mode recently - then tell us. It does not have to be an "article". A simple email to uarc@xmission.com with the details are best as you can recall. The editor can make it into an article. Of course, if you can write an article, that's OK too. So, please get out that computer and think of a story for the Microvolt. Otherwise, I start printing the fishing report from Doug Miller. That would be OK except the fish would have moved on by 4 weeks after. The deadline for submissions is the 10th of the month to make a particular issue, but send it along anyway and I am sure we can get it into the a future issue.

